



Amphiuma means

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AMPHIUMA.—*Garden.*

GENUS AMPHIUMA.—CHARACTERS. Head large; lips thick and extensive; superior maxillary bone with a thick series of small teeth; palatine teeth in two longitudinal rows; inferior maxillary bone with a single series; a single spiracle at each side of the neck; body eel-shaped; extremities four, imperfectly developed.

AMPHIUMA MEANS.—*Garden.*

Plate XXX.

CHARACTERS. Head large, sub-oval; snout depressed and rounded; neck contracted, with a transverse fold at the throat; body eel-shaped, and of a bluish-black colour, tinged with violet; anterior extremities very small, with two fingers; posterior still smaller, with two toes.

SYNONYMES. *Amphiuma means*, *Garden*, Smith's Correspond. of Linnæus, vol. i. p. 599.

Amphiuma means, *Harlan*, Med. and Phys. Res., p. 85.

Chrysodonta larvæformis, *Mitchell*, Med. Record., No. 19.

Congo Snake, *Vulgo.*

DESCRIPTION. The head is very large, elongated, sub-oval, and flattened above, especially near the snout, which is full and rounded. The mouth is large, extending to one-half the length of the head, and is provided with rather thick movable

lips. The tongue is broad, oblong, flat, smallest before, attached posteriorly, and is only free at its anterior and lateral margins for about two lines.

The upper jaw is armed with a thick series of minute teeth, that are all arched a little backwards; the lower jaw has also a single row, but less numerous. The palatine teeth are arranged in two rows, which begin near the superior maxillary series in front, run along the palate, separating more and more from each other, and terminate behind the inner margin of the posterior nares.

The nostrils are small and anterior, being placed at the very margin of the upper lip, and are near together. The eyes are distant from the snout, superior, very small, and covered with a production of the cuticle; a slightly depressed line runs from the eyes towards the nostrils, and marks the position of some minute glands.

The neck is contracted, with a transverse fold at the throat, and a single spiracle or branchial orifice at each side, which is partially covered in front by a thin fold of skin. The body is eel-shaped; and the vent appears like a longitudinal fissure just behind the posterior extremities. The tail is very long, round near the root, compressed laterally towards the tip.

The extremities are but imperfectly developed, and seem but little larger in the old than in the young animal. The anterior are very short, small, placed near the spiracle, and terminate in two small fingers. The posterior are placed before and a little on the sides of the vent, and sustain the same number of toes.

COLOUR. The whole superior surface of the animal is deep bluish-black, tinged with violet; the lips and throat are rather lighter in colour, and the belly is dark purple.

DIMENSIONS. Length of head, 2 inches; length of body, 20 inches; of tail beyond the vent, 6 inches: total length, 28 inches.

HABITS. The *Amphiuma means* lives in muddy waters or in mud. Harlan says they have been found at Pensacola, three feet or more deep in mud, of the consistence of mortar, in which they burrowed like earth-worms. They inhabit the ditches of our rice-fields, and feed on small fish and various fresh-water shells, as *Unio*, &c.; beetles and other insects have also been found in their stomachs. Sometimes like eels they are found on dry land, but for what purpose they approach it is unknown.

GEOGRAPHICAL DISTRIBUTION. North Carolina must, for the present, be considered as the northern limit of this animal, and it is even very rare in that state. In South Carolina it is more common, but is only abundant in some districts, as about Combahee river. The *Amphiuma means* is also found in the Floridas, Alabama, and Mississippi, and is said to be abundant in Louisiana.

GENERAL REMARKS. This singular reptile was made known to Linnæus by Dr. Garden of Charleston, South Carolina, so often mentioned in the progress of this work, but at too late a period to allow him to give it a place in any of the editions of the *Systema Naturæ* published during his life time.

Garden, in his letter to Linnæus,* describing this reptile, calls it "an unknown animal, the only one I ever saw;" and further he says, "at first sight I suspected it to be another species of *Siren*, but upon nearer examination I found so many differences, that there proves to be no relationship between them." Two years subsequent to this, I find Dr. Garden, in a letter to Mr. Ellis, of London, for the first time calls this animal "*Amphiuma means*."†

As Linnæus never published any account of this animal, Garden's description was of course locked up in manuscript, and thus our animal remained unknown to other naturalists for just fifty years from the time of its discovery. In 1821, Sir James Edward Smith, the eminent botanist, published the "Correspondence

* Smith's Correspondence of Linnæus, vol. i. p. 333.

† Ibid. vol. i. p. 599.

of Linnæus with other Naturalists," in which is contained the letter of Garden describing the *Amphiuma means*.

The next account, so far as I know, of our animal, may be seen in the work of Rusconi, an Italian naturalist, "*Amours des Salamandres Aquatiques*," and is but an extract of a letter from Dr. Pockels, of Brunswick. Pockels observed it in the Hunterian Museum, and supposed it to be the *Siren lacertina* in its perfect state,* and as such sent a description and drawing of it to Rusconi, which agree perfectly with the *Amphiuma means*, and not at all with the *Siren lacertina*. It must be remembered, that most naturalists of that period, considered the *Siren lacertina* as the larva of some large and unknown Salamander.

Dr. Harlan, in the third volume of the *Journal of the Academy of Natural Sciences of Philadelphia*, published some interesting remarks on the anatomy of the *Amphiuma means*, and says that he never saw the slightest appearance of gills even in specimens that did not exceed three inches in length.

To Cuvier we are, however, indebted for the best account of the anatomy of this animal, and he clearly proves that it cannot be the *Siren lacertina* in any stage of development whatever, its organization is so entirely dissimilar.

The *Amphiuma means* is known to the negroes with us under the name of Congo Snake, and is regarded, without the slightest appearance of truth, as exceedingly venomous.

* J'ai découvert un fait selon moi tres-intéressant; j'ai vu dans le Muséum Hunterien une *Sirène lacertina* avec les rudiments des pieds de derriere, &c. &c. Rusconi, loc. cit., p. 11.



Holbrook, John Edwards. 1842. "Amphiuma means – Garden." *North American herpetology; or, A description of the reptiles inhabiting the United States* 5, 89–92.
<https://doi.org/10.5962/p.326887>.

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